

## Abstract

5 A catalyst is described which has a catalytically active composition which contains a phase A and a phase B in the form of three-dimensional delimited regions, wherein phase A is a silver-vanadium oxide bronze and phase B a mixed oxide phase based on titanium dioxide and vanadium pentoxide. The catalyst serves to prepare aldehydes, carboxylic acids and/or carboxylic anhydrides from aromatic or heteroaromatic hydrocarbons by gas phase oxidation.